REMARKS

Applicant has reviewed and considered the Office Action mailed on October 27, 2003, and the references cited therewith.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-20 are now pending in this application. Applicant respectfully requests reconsideration of the above-identified application in view of the remarks that follow.

Information Disclosure Statement

Applicant respectfully requests that a copy of the 1449 Form, listing all references that were submitted with the Supplemental Information Disclosure Statement filed on August 28, 2003, marked as being considered and initialed by the Examiner, be returned with the next official communication.

First §103 Rejection of the Claims

Claims 1, 6, 11, and 16 were rejected under 35 USC § 103(a) as being unpatentable over Ribic (U.S. Patent No. 5,263,089) in view of Sogn et al. (U.S. Patent No. 5,243,662) and Northeved et al. (U.S. Patent No. 5,044,373). Applicant traverses these grounds for rejection.

The Office Action stated "[t]he arbitrary partitioning of the present invention to distinguish the active low-pass filter from other unspecified signal processing functions does not constitute novelty." Applicant respectfully disagrees, since the claims do not recite an "arbitrary partitioning."

The Office Action further stated "Ribic does not disclose that the active low-pass filter with adjustable overshoot is adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response." Applicant agrees. Further, Applicant submits that Sogn et al. (hereafter Sogn) and Northeved et al. (hereafter Northeved) also do not teach or suggest an active low-pass filter with adjustable overshoot adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response as recited in claim 1 or as recited in claim 6.

Sogn recites at column 1, lines 50-51: "[e]lectrical filtering of the input signal to the sound generator in a hearing aid may be used in order to restore the desired frequency response."

A statement regarding restoring the desired frequency response does not disclose a filter to provide a substantially smooth insertion gain frequency response. Further, Applicant can not find in Sogn a teaching or suggestion regarding insertion gain or a filter to provide a substantially smooth insertion gain frequency response. Sogn further discloses "[u]sing electrical filtering is however connected with a number of disadvantages, as the necessary electrical components need a lot of space, consume electrical power and adds up to an expensive addition." *See, Sogn, column 1, lines 52-59.* Sogn deals with an electrodynamic sound generator such that an electrical filter is not used. *See, Sogn column 1, line 50-column 2, line3.* Thus, Applicant submits that Sogn does not teach or suggest an active low-pass active filter to provide a substantially smooth insertion gain frequency response. Rather, the Sogn electrodynamic sound generator teaches away from the instant invention as indicated from the cited sections of Sogn that uses an electrodynamic sound generator that functions as a low-pass filter rather than using an electrical filter. Thus, applicant submits that the combination of the Sogn reference with the Ribic reference is not proper.

Northeved deals with apparatus and methods for measuring sound pressure levels. Figure 4 of Northeved cited in the Office Action shows that sound pressure level versus frequency curves for an "open ear" and an "aided ear," in which the difference between the sound pressure level at a given frequency is the insertion gain at that frequency, can be measured. Applicant can not find in Northeved a teaching or suggestion of an active low-pass filter to provide a substantially smooth insertion gain frequency response. Combining the teachings of Northeved with Ribic, if proper, would indicate that the sound pressure level of a hearing aid using Ribic's apparatus can be measured and then adjusted "until the insertion gain is suitable in relation to the hearing impairment," *(See, Northeved column 4, lines 16-20).* Combining Northeved with Ribic does not teach or suggest the nature of an insertion gain response to be provided. Applicant submits that adjusting a hearing device that includes Ribic's filter apparatus to have a suitable insertion gain does not teach or disclose an active low-pass filter to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response, as recited in claims 1 and 6. Thus, Applicant submits that the combination of Ribic, Sogn, and Northeved does not establish a proper *prima facie* case of obviousness with respect to claims 1 and 6, and that claims 1 and 6 are patentable over Ribic in view of Sogn and Northeved.

With respect to claim 11, Applicant can not find a teaching or suggestion in the combination of Ribic, Sogn, and Northeved for tuning the frequency response of an electronic hearing aid to a measured resonance curve to provide a smooth insertion frequency response. As noted above, Applicant submits that the cited references are silent regarding providing a smooth insertion frequency response. Thus, Applicant submits that the combination of Ribic, Sogn, and Northeved does not establish a proper *prima facie* case of obviousness with respect to claim 11, and that claim 11 is patentable over Ribic in view of Sogn and Northeved.

With respect to claim 16, the Office Action stated "Ribic does not disclose that the processing means having an adjustable overshoot is adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response." Applicant agrees. Further, Applicant submits that Sogn et al. (hereafter Sogn) and Northeved et al. (hereafter Northeved) also do not teach or suggest a processing means having an adjustable overshoot adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response, as recited in claim 16.

Sogn recites at column 1, lines 50-51: "[e]lectrical filtering of the input signal to the sound generator in a hearing aid may be used in order to restore the desired frequency response." A statement regarding restoring the desired frequency response does not disclose means having an adjustable overshoot adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response. Further, Applicant can not find in Sogn a teaching or suggestion regarding insertion gain or a means to provide a substantially smooth insertion gain frequency response. Sogn further discloses "[u]sing electrical filtering is however connected with a number of disadvantages, as the necessary electrical components need a lot of space, consume electrical power and adds up to an expensive addition." *See, Sogn, column 1, lines 52-59.* Sogn deals with an electrodynamic sound generator such that an electrical means to provide a substantially smooth insertion gain frequency response is not used. *See, Sogn column 1, line 50-column 2, line3.* Thus, Applicant submits that Sogn does not teach or suggest a processing means having an adjustable overshoot is adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response. Rather, the Sogn electrodynamic sound generator teaches away from the instant invention as indicated from the cited sections of Sogn that uses an electrodynamic sound generator that functions as a low-

pass filter rather than using electrical means. Thus, applicant submits that the combination of the Sogn reference with the Ribic reference is not proper.

Northeved deals with apparatus and methods for measuring sound pressure levels. Figure 4 of Northeved cited in the Office Action shows that sound pressure level versus frequency curves for an "open ear" and an "aided ear," in which the difference between the sound pressure level at a given frequency is the insertion gain at that frequency, can be measured. Applicant can not find in Northeved a teaching or suggestion of a means to provide a substantially smooth insertion gain frequency response. Combining the teachings of Northeved with Ribic, if proper, would indicate that the sound pressure level of a hearing aid using Ribic's apparatus can be measured and then adjusted "until the insertion gain is suitable in relation to the hearing impairment," *(See, Northeved column 4, lines 16-20)*. Combining Northeved with Ribic does not teach or suggest the nature of an insertion gain response to be provided. Applicant submits that adjusting a hearing device that includes Ribic's filter apparatus to have a suitable insertion gain does not teach or disclose a processing means having an adjustable overshoot adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response, as recited in claim 16. Thus, Applicant submits that the combination of Ribic, Sogn, and Northeved does not establish a proper *prima facie* case of obviousness with respect to claim 16, and that claim 16 is patentable over Ribic in view of Sogn and Northeved.

Applicant respectfully requests withdrawal of these rejections of claims 1, 6, 11, and 16, and reconsideration and allowance of these claims.

Second §103 Rejection of the Claims

Claims 2-5, 7-10, 12-15, and 17-20 were rejected under 35 USC § 103(a) as being unpatentable over Ribic (U.S. Patent No. 5,263,089) in view of Sogn et al. (U.S. Patent No. 5,243,662) and Northeved et al. (U.S. Patent No. 5,044,373) as applied to claims 1, 6, and 16 above, and further in view of Killion (U.S. Patent No. 4,689,819). Applicant traverses these grounds for rejection.

As noted above, claims 1, 6, 11, and 16 are patentable over Ribic in view of Sogn and Northeved. The combination of these references with Killion does not cure the abovementioned deficiencies of these references with respect to claims 1, 6, 11, and 16. Thus, Applicant submits

that claims 1, 6, 11, and 16 are patentable over Ribic in view of Sogn and Northeved and further in view of Killion.

Claims 1-5, claims 7-10, claims 12-15, and claims 17-20 depend on claims 1, 6, 11, and 16, respectively, and are patentable over Ribic in view of Sogn and Northeved and further in view of Killion for the reasons stated above and additionally in further view of the elements of these dependent claims.

Applicant respectfully requests withdrawal of these rejections of claims 2-5, 7-10, 12-15, and 17-20, and reconsideration and allowance of these claims.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 29 December 2003 By _____
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29 day of December, 2003

Paula Suchy
Name

Signature